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A QUALITATIVE RESEARCH STUDY ON
FETAL ALCOHOL SYNDROME

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Social Work

by
Miriam Irvin
Wilma Shepard

June 1995

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FETAL ALCOHOL SYNDROME


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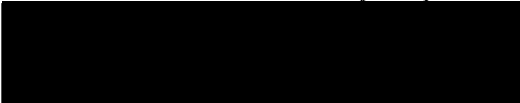
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June 1995

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6-15-95
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ASSIGNED RESPONSIBILITIES

This was a group project and a team effort where authors collaborated throughout the project. However, for each phase of the project, certain authors took primary responsibility. These responsibilities were assigned in the manner listed below:

1. Data Collection:

Team Effort Miriam Irvin & Wilma Shepard

2. Data Entry and Analysis:

Data Entry Miriam Irvin & Wilma Shepard

Analysis Miriam Irvin & Wilma Shepard

3. Writing Report and Presentation of Findings:

a. Introduction and Literature

Team Effort Miriam Irvin & Wilma Shepard

b. Methods

Team Effort Miriam Irvin & Wilma Shepard

c. Results

Team Effort Miriam Irvin & Wilma Shepard

d. Discussion

Team Effort Miriam Irvin & Wilma Shepard

ABSTRACT

This post positivist qualitative research was designed to address factors that contribute to alcohol consumption during pregnancy and the amount of information regarding fetal alcohol syndrome. For this purpose, we conducted face to face interviews with 20 alcoholic female participants in the Inland Empire Rehabilitation Facility. 9 or 45% of the participants were Caucasians, 18 or 90% of our study sample reported having parents who had a history of alcohol abuse during their childhood, and 17 or 85% had children who exhibited fetal alcohol syndrome symptoms. Suggestions for program improvement were discussed.

TABLE OF CONTENTS

ASSIGNED RESPONSIBILITIES PAGE	iii
ABSTRACT	iv
LIST OF TABLES	vii
INTRODUCTION	1
Problem Statement	1
Problem Focus	2
LITERATURE REVIEW	3
RESEARCH DESIGN AND METHODS	8
Research Question	10
Sample Selection	10
Instruments	11
Data Collection	11
Reliability and Validity	13
RESULTS SECTION	15
Demographics	18
Family History	18
Health History	18
Alcohol History	19
Alcohol Consumption Awareness	19
Fetal Alcohol Syndrome Awareness	19
Perinatal Program Perception	20
DISCUSSION	20

Table of Contents (continued)

APPENDIX A	35
Interview Questions	35
APPENDIX B	38
Informed Consent.....	38
APPENDIX C	40
Debriefing Statement	40
REFERENCES	42

LIST OF TABLES

Table 1	Demographic Table	26
Table 2	Family History Table	28
Table 3	Health History Table	30
Table 4	Alcohol History Table	31
Table 5	Alcohol Consumption Awareness Before Treatment Table	32
Table 6	Fetal Alcohol Syndrome Awareness Before Treatment Table	33
Table 7	Perinatal Program Perceptions Table	34

INTRODUCTION

In the 22 years since fetal alcohol syndrome was identified in the United States, several thousand papers have been written describing the clinical signs and the hypothesized mechanisms of damage from prenatal alcohol exposure. While there is still much to be learned, the scope of understanding regarding alcohol consumption during pregnancy is impressive. Alcohol's capacity to damage the developing fetus is indisputable. Because it is not known at what point alcohol damage begins, it is prudent to recommend that pregnant women abstain from alcohol use pending confirmation of alcohol's role in fetal development.

In using the post positivist approach, this research project will address factors that contribute to alcohol consumption during pregnancy and the amount of information regarding fetal alcohol syndrome. A review of the literature shows that there is very little research available on prevention of fetal alcohol syndrome. The majority of the research focused on intervention techniques. Therefore, this project will take an exploratory approach.

PROBLEM STATEMENT

Numerous cases of fetal alcohol syndrome, from all over the world, have now been reported (Cook, Peterson, & Moore, 1990). The problem concerning fetal alcohol syndrome is

that the primary focus has been on treatment and research rather than prevention.

Since the beginning of the 18th century, physicians and researchers in England and France have observed and reported the harmful effects of maternal alcohol consumption on offsprings. It was not until 1973, however, that a group of scientists at the University of Washington, Seattle, labeled a characteristic pattern of severe birth defects as "fetal alcohol syndrome" (FAS), (Cook, Peterson, & Moore, 1990).

In 1973, Jones and Smith (Jones & Smith, 1973) coined the term "fetal alcohol syndrome" (FAS) to describe a pattern of abnormalities observed in children born to alcoholic mothers. It was originally postulated that malnutrition might be responsible for these defects. However, alcohol has been found to be acutely toxic to the fetus independently of the effects of malnutrition (Phillips, Henderson, & Schenker, 1989).

PROBLEM FOCUS

Due to the limited amount of research in the area of prevention of fetal alcohol syndrome, this research project will explore factors that contribute to alcohol consumption during pregnancy and the amount of information regarding fetal alcohol syndrome. The paradigm which will be used for this research project will be post positivist. The study will be exploratory in nature, and an integration of direct

social work practice and community intervention roles will be incorporated in the study.

LITERATURE REVIEW

Criteria for defining FAS was standardized by the Fetal Alcohol Study Group of the Research Society of Alcoholism in 1980 (Rosett, 1980), and modifications were proposed in 1989 by Sokol and Clarren (Sokol & Clarren, 1989). The proposed criteria are: (a) prenatal and/or postnatal growth retardation (weight and/or length below the 10th percentile), (b) central nervous system involvement, including neurological abnormalities, developmental delays, behavioral dysfunction, intellectual impairment, and skill or brain malformations, and (c) a characteristic face with short palpebral fissures (eye openings), a thin upper lip, and an elongated, flattened mid-face and philtrum (the groove in the middle of the upper lip).

Mental handicaps and hyperactivity are probably the most debilitating aspects of FAS (Streissguth, Sampson, & Barr, 1989) and prenatal alcohol exposure is one of the leading known causes of mental retardation in the Western World (Abel & Sokol, 1986). Problems with learning, attention, memory, and problem solving are common, along with un-coordination, impulsiveness, and speech and hearing impairment (Streissguth, et al. 1989; Streissguth and LaDue, 1985). Deficits in learning skills persist even into

adolescence and adulthood (Streissguth, et al. 1989; Streissguth, Aase, Clarren, Randels, LaDue, & Smith, 1961-1967, 1991).

It is generally accepted that the adverse effects of prenatal alcohol exposure exist along a continuum, with the complete FAS syndrome at one end of the spectrum and incomplete features of FAS, including more subtle cognitive behavioral deficits, on the other. Thus, infants with sub-optimal neurobehavioral responses may later exhibit subtle deficits in such aspects of daily life as judgement, problem solving, and memory (Streissguth, et al. 1989).

Studies of the incidence of FAS are complicated by methodological problems. Data has been collected in various ways: (a) in the catchment approach, birth defects are monitored at the same time of birth only, (b) in retrospective studies, the children are identified as having FAS at some time after birth, and (c) in prospective studies, children are followed over time and assessed at various intervals from birth onward. Catchment data tends to underestimate FAS incidence because the neonatal period is a difficult time to detect FAS. Not only are facial features associated with the syndrome difficult to recognize, but the central nervous system dysfunction, including mental retardation, may not be identified until several years after birth (Sokol & Clarren, 1989; Abel and

Sokol, 1987; Little, Snell, Rosenfeld, Gilstrap, & Gant, 1990). On the other hand, retrospective and prospective studies may overestimate FAS incidence by oversampling populations where FAS incidence is usually high (Abel & Sokol, 1987). Analyses are further complicated by the unreliability of self-reports of maternal drinking (Sokol, Martier, & Ager, 1989).

Catchment data on the incidence of FAS are derived from the Birth Defects Monitoring Program of the Centers for Disease Control (CDC) (Chavez, Cordero, & Becerra, 1989). Based on data from 1,500 hospitals, CDC reported the nationwide incidence of FAS to be 0.3 to 0.9 per 10,000 births (excluding Native-Americans). In contrast, Abel and Sokol surveyed 19 published epidemiological studies worldwide. The overall rate from all studies were 1.9 cases per 1,000 live births. The average for retrospective studies surveyed by Abel and Sokol was 2.9 per 1,000, compared with 1.1 per 1,000 for prospective studies. Most reported cases in the United States came from study sites where the mothers were African-American or Native-American and of low socioeconomic status. The estimated rate at these sites was 2.6 per 1,000 compared with 0.6 per 1,000 from other study sites, where the mothers were predominately Caucasian and of middle socioeconomic status (Abel & Sokol, 1987).

According to the CDC catchment study, incidences of FAS per 10,000 total births for different ethnic groups were as follows: Asians 0.3, Latinos 0.8, Caucasians 0.9, African-Americans 6.0, and Native-Americans 29.9 (Chavez, et al. 1989). Because of differences in study design, the ratios among various ethnic groups derived from the CDC catchment data cannot be used to estimate FAS incidence for different ethnic groups as obtained from prospective and retrospective studies. Among Native-Americans, the incidence of FAS varies among different cultures. Health units serving principally Navajo and Pueblo tribes report an FAS prevalence similar to that for the overall U.S. population, while for Southwest Plains Indians, a much higher prevalence was reported (1 case per 102 births), (May, Hymbaugh, Aase, & Samet, 1983). Several factors, such as cultural influences, patterns of alcohol consumption, nutrition, and metabolic differences have been suggested to play a role in this difference (Aase, 1981).

In the case of African-Americans, the risk of FAS remain about sevenfold higher than for Caucasians, even after adjustment for the frequency of maternal alcohol intake, occurrence of chronic alcohol problems, a parity (number of children born), (Sokol, Ager, Martier, Debanne, Ernhart, Kuzma, & Miller, 1986).

Apart from epidemiology, the key questions in FAS research are, How much alcohol is too much? and, When is the fetus at greatest risk? The major problem in addressing these questions is the lack of specific physiological measure that accurately reflects alcohol consumption. There is no biological marker currently available to measure alcohol intake, and self-reports of alcohol consumption may be unreliable, perhaps especially so during pregnancy (Ernhart, Morrow-Tlucak, Sokol, & Martier, 1988). Morrow-Tlucak and colleagues found that women with more serious alcohol-related problems are those more likely to underreport their alcohol consumption when interviewed during pregnancy (Morrow-Tlucak, Ernhart, Sokol, Martier, & Ager, 1989).

While it is apparent that children who meet the criteria for FAS are born only to those mothers who consume large amounts of alcohol during pregnancy, studies have reported neurobehavioral deficits and intrauterine growth retardation in infants born to mothers who reported themselves to be moderate alcohol consumers during pregnancy (Little, Asker, Sampson, & Renwick, 1986; Coles, Smith, Lancaster, & Falek, 1987; Russell, 1991). In a retrospective study of 359 newborns, Ernhart and colleagues found a trend toward increasing head and facial abnormalities with increasing embryonic alcohol exposure.

An effect occurred at even the lowest reported levels of alcohol intake, so that a clear threshold (minimum amount of alcohol to produce an effect) could not be defined (Ernhart, Sokol, Martier, Moron, Nadler, Ager, & Wolf, 1987).

Given the range of defects that result from prenatal alcohol exposure, for the purpose of this study, we will look at women's attitudes regarding alcohol consumption during pregnancy.

Research has provided the facts and origin of FAS. It also suggests that there is one primary cause (alcohol consumption) that can be addressed and thoroughly explored by direct social work practice and community intervention roles. As researchers, we have chosen to explore factors that contribute to alcohol consumption during pregnancy and the amount of information regarding fetal alcohol syndrome. Prevention, policy planning and services are some of the areas that will be explored when interviewing our target population.

RESEARCH DESIGN AND METHODS

The purpose of our research study is to address factors that contribute to alcohol consumption during pregnancy and the amount of information regarding fetal alcohol syndrome. This project targets alcoholic mothers who participate in an Inland Empire Rehabilitation Facility. This facility meets the needs of the alcoholic mothers by assisting them in

rebuilding their lives. The overall goal of our research is to bring attention to the social problem of alcoholic mothers and fetal alcohol syndrome.

The orientation which we have chosen is the post positivist paradigm. The post positivist paradigm lends itself well to addressing factors that contribute to alcohol consumption during pregnancy.

Some research problems lend themselves well to qualitative types of research, for instance, research that attempts to uncover the nature of person's experiences with phenomenon, like illness, religious conversion, or addiction (Strauss & Corbin, 1990). Our research indicates that the phenomenon of alcohol addiction lends itself well to the post positivist exploratory approach.

Within the context of social work practice, the Inland Empire Rehabilitation Facility focuses on a population that has received minimal amounts of information regarding alcohol consumption during pregnancy. Consequently, our research will help heighten community awareness regarding alcohol consumption during pregnancy and it's effects.

The major social work role evaluated in this study is direct practice. The research elements that we addressed are derivation, experience, and interpretation. Within the contest of derivation, we focused on the Inland Empire Rehabilitation Facility, in terms of examining alcohol

awareness of our target population. With respect to experience, we focused on the alcoholic mothers being serviced. Lastly, the emphasis of interpretation defined factors and awareness of alcohol consumption during pregnancy.

RESEARCH QUESTION

Consistent with the exploratory and grounded theory conceptual framework of the research design, our study requires a dynamic theoretical sampling method which can lead to a diverse mixture of alcoholic mothers and diversity in their life experiences.

As mentioned previously, this research project will address factors that contribute to alcohol consumption during pregnancy and the amount of information regarding fetal alcohol syndrome.

SAMPLE SELECTION

The convenience sample for this study was obtained through our contact with the administration of the Inland Empire Rehabilitation Facility in whose catchment area is primarily composed of alcoholic mothers.

The goal was to interview between 15 to 20 participants. Since this population has kept a low profile, we decided on a convenience sample, by interviewing any alcoholic mother attending the facility that was willing to participate in our study.

INSTRUMENTS

Since we are working as a team on this research project, we needed an instrument whereby we could obtain similar results. We used a questionnaire as our instrument to help us develop a body of evidence descriptive of factors that contribute to alcohol consumption during pregnancy and the amount of information regarding fetal alcohol syndrome. Our questionnaire included: demographics, family history, health history, alcohol history, and services provided by the facility.

DATA COLLECTION

The data was collected through face to face interviews. The overall questions were guided by evolving theory. The evolving theory guides that you look for, where you go to find it, and what you look for in the data (Strauss & Corbin, 1990). Each interview was unique and contributed a slightly different perspective, and thus increased the growing body of information descriptive of mothers who consume alcohol during pregnancy. Eventually, the evolving theory lead to factors and information associated with consumption of alcohol during pregnancy.

The data collection process took approximately three months and was conducted by our team which consisted of two females of which one is bilingual and both are bicultural. Having a gender and culturally sensitive team assisted us in

obtaining more in depth information from the participants. All participants were asked to sign an informed consent prior to the commencement of the interview. Each participant was prepared prior to the interview on the purpose, length, and intended goals of the study. California State University San Bernardino was identified as the authorizing institution as well as our background as graduate social work students.

Any persons willing to participate in the study were interviewed in private rooms. Refreshments and snacks were provided during the actual interviews. The actual process of interviewing was quite lengthy because the interviews were conducted around the participants' schedules. Nevertheless, all interviews were conducted face to face.

Interested participants were selected using a convenience sampling method. Also, due to the time constraints associated with our work and school responsibilities, our sample size was limited to 15 to 20 interviews. Initial contacts were made through the agency's staff and volunteers. Additional participants were obtained via contacts through initial participants, that is, each participant was asked to nominate one or two other individuals that were willing to participate in the study.

One of the strengths associated with doing qualitative interviews is that they allow a more personal touch. For

example, if the questions are not clear, the researcher will be able to assist in clarifying the questions for the participants. Insightful information was obtained by letting the participants tell their story in depth. This process also allowed the interviewers to explore issues in detail. The overall weakness with this approach was that interviewing the individuals were very time consuming.

RELIABILITY AND VALIDITY

Due to the fact that we were following the exploratory grounded theory approach, it was difficult to assess the exact validity of the participants' commentaries and answers. It is possible that some of the participants may have exaggerated their stories in an attempt to fool or impress the researchers. There is no foolproof or practical way to determine the reliability of qualitative self-reports. However, one approach, which may have been successful, would be to have the participants retell the story from a different way. If the retelling complements the participants' previous story, this would have shown that the original data was somewhat accurate.

Systematic methodological attempts were made to increase the likelihood of getting accurate life-history accounts, for example behavioral type questions were asked, such as, "What did you do?" and "How did you do it?" Another method that was used in asking questions related to

specific events, such as the question we used in our guideline questionnaire. "How old were you the first time you used alcohol?" Cross checking is a technique of asking participants to describe an incident or event that overlaps with another account. For example, comparing their stories of raising their children with their account of how much time they were actually married and living at home.

This was a convenience sample in that for time frames and work schedules, we interviewed all willing and available persons for this study. We, as researchers, were not allowed to select sample participants. Overall, with this type of "theoretical sampling", one must keep in mind that the data cannot be used for making quantitative statistical inferences about other populations that consume alcohol. Given the exploratory grounded theory, the information obtained was relevant to only the specific individuals interviewed.

In order to maintain confidentiality and anonymity of the participants in our study, we initiated the following procedures. We obtained a letter of authorization from the facility granting us permission to conduct the study. Second, each participant signed an informed consent to be interviewed. Third, all participants were given debriefing statements, upon completion of the interview.

RESULTS

The primary intent of our research study was to address factors that contribute to alcohol consumption during pregnancy and the amount of information regarding fetal alcohol syndrome. In the process, we interviewed 20 participants at the Inland Empire Rehabilitation Facility. In an effort to uncover the extent of their psychosocial commonalties, we covered the following areas: demographics, family history, health history, alcohol history, alcohol consumption awareness, fetal alcohol syndrome awareness, as well as a section on the perceptions of the participants regarding the Inland Empire Rehabilitation Facility's perinatal program. Our study followed 20 female alcoholics ranging from ages 18-30. The study was conducted from January to March 1995 at the Inland Empire Rehabilitation Facility.

The qualitative procedure we utilized to address factors that contribute to alcohol consumption during pregnancy and the amount of information regarding FAS was the grounded theory procedures and techniques which are aimed at identifying, developing, and relating concepts (Strauss and Corbin, 1990). The relating of major categories to sub-categories is accomplished by means of the paradigm conditions, context, strategies, and overall consequences. Since the post positivist paradigm indicates

a lack of structure and assumptions about the subject matter, the theory and categorizing of the information evolved with the coding of the data.

We conducted interviews with willing participants from the Inland Empire Rehabilitation Facility. Open coding was completed after each interview which allowed us to begin to develop categories immediately. The goal was to obtain between 15 to 20 interviews over a three month period.

The interviews were conducted in a non-structured manner allowing for exploratory discovery. The researchers attended the perinatal program once per week and scheduled appointments with participants for the same day or the following week. As previously mentioned, a convenience sample method was effective for us because the majority of the participants were willing to participate in our study.

The Inland Empire Rehabilitation Facility gave us private rooms in which to conduct our interviews. The participants were offered snacks and refreshments. The staff at Inland Empire Rehabilitation Facility were consistently supportive in our endeavors to obtain a sufficient pool of interviewees. We feel that the study would not have been accomplished without the cooperation of the Inland Empire Rehabilitation Facility staff.

The operational refinements process was performed by indexing the information obtained from the interviews into

various categories and sub-categories. The basic task of categorizing is to bring together into provisional categories the information that apparently relate to the same content and can be used to develop and justify evolving categories. According to Guba and Lincoln, filling in patterns is accomplished through extension or building on obtained information, second by bridging disconnected units of information, and third by hypothesis formation (Guba & Lincoln, 1985).

Thus, consistent with the open coding process, we began to categorize. Some of the major categories that originated from the preliminary analysis were demographics, family history, health history, alcohol history, alcohol consumption awareness, and participants' perceptions. In axial coding, our focus was on specifying the major categories with sub-categories such as age, ethnic background, years using alcohol, and perceptions of the perinatal program. The purpose of these sub-categories was to give the major categories precision, therefore, the context of each category was explored in detail. As illustrated in the enclosed tables, the following significant findings which address factors that contribute to alcohol consumption during pregnancy and the amount of information regarding FAS are explained below.

Demographics

The following are relevant findings from the demographic table, 45% of the participants of the study were between the ages of 18-22, 50% of the participants completed up to the 10th grade, 45% were Caucasian, 35% were married, and 100% of the participants primary income comes from AFDC. (refer to Table 1).

Family History

The prominent findings from the family history table are 60% of the participants stated that their family was their primary source of support, 75% of the participants had between 4 to 6 children, 90% stated that either their mother or father were alcoholics or heavy drinkers, 80% of the participants stated that at least one or more relatives were alcoholics or heavy drinkers, 75% of the participants admitted being physically abused as children, 50% denied experiencing emotional abuse as children, 75% suffered neglect as children, and 90% admitted being sexually abused as children. (refer to Table 2).

Health History

The primary findings from the health history table are 80% of the participants admitted to suicidal ideation, 80% stated that they did not believe in abortions and denied having any, 90% denied having any miscarriages, 80% of the participants had not received prior outpatient alcohol

treatment, 85% reported that they had received inpatient alcohol treatment, 75% stated that they were in good health, and 85% did not use any methods of birth control. (refer to Table 3).

Alcohol History

The major findings from the alcohol history table are 85% of the participants stated that they used alcohol 1 to 10 years, 90% had been alcohol free, 95% consumed alcohol during their pregnancy, 85% reported that one or more of their children exhibited FAS symptoms, 100% suffered personal loss due to their alcohol usage, and 100% of the participants stated that they were involved in other programs (primarily alcohol anonymous). (refer to Table 4).

Alcohol Consumption Awareness Before Treatment

The significant finding from the alcohol consumption awareness table is 85% of the participants were not aware of the effects alcohol consumption during pregnancy may have on their unborn before entering treatment. (refer to Table 5).

Fetal Alcohol Syndrome Awareness Before Treatment

The substantial finding from the fetal alcohol syndrome awareness table is 90% of the participants were not aware of fetal alcohol syndrome before entering treatment. (refer to Table 6).

Perinatal Program Perception

The essential findings from the perinatal program perception table are 95% of the participants attended the program because of CPS involvement, 85% remained interested because of the opportunity to regain custody of their children, 90% stated education as an additional need, 95% stated community services as an additional need, 55% stated media input, and 90% suggested prevention as the overall means for improving the program. (refer to Table 7).

DISCUSSION

As a result of the limited amount of research in the area of prevention of fetal alcohol syndrome, our findings support the fact that there is still much to be learned regarding alcohol consumption during pregnancy. Eighteen or 90% of the participants felt that prevention is the area that needs to be targeted at the micro and macro levels. Our interviewees prominent age range was from 18-22 years. The majority of the participants come from a history of alcoholic families as well as from abusive homes. As a consequence of their abused childhood, most of them reported that they began drinking alcohol at the age of ten.

Education was viewed as a lesser priority in their lives because at least half of them dropped out of school between eighth and tenth grade. Therefore, some of the participants reported running away from home during this

period in their lives. The participants felt that some of their unmet academic needs were now being fulfilled at the perinatal program because the program provides them with educational and survival techniques to assist them and their children on a daily basis.

According to our study, we found that the majority of our participants were Caucasians. Contrary to Abel and Sokol's findings in where the mothers were predominately African-American or Native-American and of low socioeconomic status. We found our mothers to be predominately Caucasian and of low socioeconomic status. Along with this finding, our entire sample received AFDC as their primary source of support even though 35% reported being married. The location of our study site encompassed a poor inner city zone which may be the result of all our subjects being of low socioeconomic status.

The life styles of the participants were parallel. Twelve or 60% of the women's support system come from among family members. Since their children were removed by Child Protective Services due to their alcohol abuse, family members meanwhile have taken on the responsibility of child care. As a result of their early onset of consuming alcohol, it may well be true that their cognitive skills were distorted due to the toxicology of alcohol. Our

findings showed that 15 or 75% had between 4 to 6 children and continued drinking throughout their pregnancies.

Our study showed a lack of research in regards to women's perceptions toward abortions, miscarriages, birth control, physical, and mental health. When conducting our interviews, we found that the majority of the women did not believe in abortion nor birth control. With respect to abortion, most of the women stated that their religious beliefs overrode their actions. For instance, one participant stated, "I am a Christian. I don't believe in abortion, but I was afraid of having a retarded child." Another participant, when asked about her health history, stated, "I'm in good health, but one of my kidneys is failing."

Seventeen or 85% of the alcoholic mothers reported having at least one or more children who exhibited fetal alcohol syndrome symptoms. According to Streissguth, et al, effects of prenatal alcohol exposure exist along a continuum, but cognitive-behavioral effects are difficult to recognize because they can only be identified if assessing a child's developmental stage status, such as lack of motor skills, behavioral problems, or learning disabilities.

In our study, we focused on overall misinformation regarding alcohol consumption during pregnancy and its effects, reasons the participants disclosed range from no

awareness to some awareness. During our interviews, the mothers' disclosure ranged from no awareness to some awareness in relation to alcohol consumption during pregnancy and its effects. For instance, some mothers stated that they were aware of the danger of consuming alcohol during pregnancy, but they thought nothing would happen to their unborn children. The rationale for their perceptions with respect to drinking alcohol during pregnancy could be their inability to make sound judgement due to their cognitive impairment, as a result of their early onset of drinking.

As previously stated in our problem statement, there is a clear lack of prevention models geared toward educating women on the dangers that could entail drinking alcohol during pregnancy. Therefore, prevention is an area which needs to be further explored. Since it is not known at what stage the unborn is affected by the mother's alcohol intake, it is necessary to recommend that pregnant women abstain from drinking at the onset of their pregnancy.

Due to the major findings in our study in the areas of lack of awareness in relation to alcohol consumption during pregnancy and its effects, it is important to focus on developing prevention strategies for mothers who use and abuse alcohol during pregnancy, and who are unable to abstain during this period in their lives. An important

strategy for preventing alcohol-related birth defects is the development of better screening techniques to identify women at high risk for heavy alcohol consumption throughout their pregnancy. Another strategy would be to help them to overcome denial about their drinking by inquiring about past, rather than present, drinking. Another task would be to establish alternatives and different avenues toward the attitudes associated with alcohol consumption among females of child bearing age. A sincere approach with an understanding of the factors that would cause women to drink would be a more logical variable.

As a result of our findings from the perinatal program perceptions and the participants' service needs, we propose a model with an objective to educate mothers about alcohol consumption during pregnancy and its effects. Our primary goal would be prevention. The target areas would include women clinics throughout the community, churches, rehabilitation facilities, family service agencies, mental health agencies, media communication networks, health professionals, legislative representatives, and alcohol advertisement industry.

Overall, alcohol consumption during pregnancy and its effects is a major problem that women face in society, therefore, focusing on prevention can heighten community awareness, increase perceptions and attitudes in society as

a whole concerning the risks of alcohol consumption during pregnancy. Prevention will bring about change in attitudes, increase knowledge and awareness, and above all create an environment that would truly accept and understand the message, IT IS OK NOT TO DRINK while pregnant.

Table 1

Demographic data

Appendix A: Tables

Item	Percent	N
<u>Gender</u>		
Female	100%	20
<u>Age Range</u>		
18 - 22	45%	9
23 - 26	20%	4
27 - 30	35%	7
<u>Education</u>		
8th - 10th grade	50%	10
11th - 12th grade	25%	5
GED Diploma	15%	3
13th - 14th grade	10%	2
<u>Ethnicity</u>		
Latino	25%	5
African-American	15%	3
Native-American	10%	2
Asian-American	5%	1
Caucasian	45%	9
<u>Marital Status</u>		
Single	10%	2

Married	35%	7
Separated	5%	1
Divorced	20%	4
Widowed	10%	2
Other	20%	4

Income

AFDC	100%	20
Social Security	0	
Disability	0	0
Other	0	0

Table 2

Family History

Support System

Family	60%	12
Other	30%	6
No support	10%	2

Children

1 - 3	15%	3
4 - 6	75%	15
6 - 10	10%	2

Family History of Alcohol Abuse

Parents

Yes	90%	18
No	10%	2

Siblings

Yes	15%	3
No	85%	17

Relatives

Yes	80%	16
No	20%	4

History of Family Violence

Physical abuse

Yes	75%	15
No	25%	5

Emotional abuse

Yes	50%	10
-----	-----	----

No	50%	10
----	-----	----

Neglect

Yes	75%	15
-----	-----	----

No	25%	5
----	-----	---

Sexual abuse

Yes	90%	18
-----	-----	----

No	10%	2
----	-----	---

Table 3

Health History

Suicidal ideation

Yes	80%	16
No	20%	4

Abortions

Yes	20%	4
No	80%	16

Miscarriages

Yes	10%	2
No	90%	18

Treatment Alcohol History

Outpatient

Yes	20%	4
No	80%	16

Inpatient

Yes	85%	17
No	15%	3

Physical Health

Good	75%	15
Poor	25%	5

Birth Control

Yes	15%	3
No	85%	17

Table 4

Alcohol History

Length of Alcohol Usage

1 - 10 years	85%	17
11 - 15 years	15%	3

Has Client Ever Been Alcohol Free

Yes	90%	18
No	10%	2

Alcohol Consumption During Pregnancy

Yes	95%	19
No	5%	1

Do Client's Children Exhibit FAS Symptoms

Yes	85%	17
No	15%	3

Personal Loss Due to Alcohol Usage

Yes	100%	20
No	0	0

Client Involved in Other Programs

Yes	100%	20
No	0	0

Table 5

Alcohol Consumption Awareness Before Treatment

Awareness	15%	3
No awareness	85%	17

Table 6

Fetal Alcohol Syndrome Awareness Before Treatment

Awareness	10%	2
No awareness	90%	18

Table 7

Perinatal Program Perceptions

Reasons for Attending Program

CPS	95%	19
Other	5%	1

What Motivates Client to be Interested in Program

Regain custody of children	85%	17
Rehabilitation	15%	3

Additional Information Needed Regarding Alcohol Consumption
and FAS Awareness

Education

Yes	90%	18
No	10%	2

Community Services

Yes	95%	19
No	5%	1

Media Input

Yes	55%	11
No	45%	9

Suggestions for Program Improvement

Prevention

Yes	90%	18
No	10%	2

Appendix A

Interview Questions

1. Demographic Information:

- a. Interview number
- b. Birth date/age
- c. Number of years of education
- d. Ethnic background
 - 1. Latino
 - 2. Caucasian
 - 3. African-American
 - 4. Asian-American
 - 5. Native-American
 - 6. Other
- e. Income
 - 1. AFDC
 - 2. Social Security
 - 3. Disability
 - 4. Other
- f. Marital status
 - 1. Single
 - 2. Married
 - 3. Separated
 - 4. Divorced
 - 5. Widowed
 - 6. Other

Interview Questions (continued)

2. Family History:

- a. Support system
- b. Number of children
- c. Family history of alcohol use/abuse
- d. History of family violence
 - 1. Physical
 - 2. Emotional
 - 3. Sexual
 - 4. Neglect

3. Health History:

- a. Suicide ideation
- b. Abortions
- c. Miscarriages
- d. Treatment history
 - 1. Outpatient
 - 2. Inpatient
- e. Physical health
- f. Birth control

4. Alcohol History:

- a. Length of alcohol usage
- b. Has client ever been alcohol free?
- c. Alcohol consumption during pregnancy
- d. Personal loss due to alcohol usage
- e. Is client involved in other programs?

Interview Questions (continued)

5. Alcohol Consumption Awareness Before Treatment:
 - a. Awareness
 - b. No awareness
6. Do Clients' Children Exhibit FAS Symptoms?:
 - a. Yes
 - b. No
7. Fetal Alcohol Syndrome Awareness Before Treatment:
 - a. Awareness
 - b. No awareness
8. Participants' Perceptions of the Perinatal Program:
 - a. Reasons for attending program
 - b. What motivates client to be interested in program?
 - c. Additional information needed regarding alcohol consumption and FAS awareness
 - d. Suggestions for program improvement

Appendix B

Informed Consent

I consent to participate in the Research study for the purpose to explore the factors that contribute to women drinking during pregnancy at Inland Empire Rehabilitation Facility, in San Bernardino. This study will be conducted by Miriam Irvin and Wilma Shepard, under the auspices of California State University, San Bernardino

I understand that my involvement will consist of a face to face interview with Miriam Irvin and/or Wilma Shepard. I also hereby authorize Inland Empire Rehabilitation Facility in San Bernardino to release any information regarding services provided to me to the research team of Miriam Irvin and/or Wilma Shepard. I also grant them permission to examine my facility file for purposes of this research.

I understand that my participation is voluntary and that all information is confidential and that my identity will not be revealed. I am free to withdraw consent and to discontinue participation in the project at any time. Any questions I have will be answered by the researchers named below.

California State University, San Bernardino, and the researchers named below have responsibility for insuring that the participants in research projects conducted under University auspices are safe-guarded from injury or harm

Informed Consent (continued)

resulting from such participation. If appropriate, the persons named below may be contacted for remedy or assistance for any possible consequences from such action.

Based on the above statement, I agree to participate in this research.

Participants Signature

Date

Researcher(s)

Date

RESEARCHERS

Miriam Irvin and Wilma Shepard
1661 North "E" Street
San Bernardino, California 92405
Work Phone (909) 886-6737

Appendix C

Debriefing Statement

TO: PARTICIPANT

FROM: Miriam Irvin and Wilma Shepard

We want to thank you for volunteering to participate in the research study at Inland Behavioral Services, Inc. Please be assured that any information you provide will be held in strict confidence by the researchers. At the conclusion of this study, you may receive a report of the results.

The reason for your participation in this research study is to assist in identifying characteristics and causes of alcohol consumption during pregnancy of clients such as yourself and others at Inland Behavioral Services, Inc. These findings will assist the agency in improving and providing more information and better services that are important to you and others being served at the agency.

If you would like to obtain general results of the study or, if you have any questions or concerns, you can contact either of the two researchers at the respective address and phone number below.

Again, thank you for your willingness to participate in this research study.

Debriefing Statement (continued)

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